Attachment 2.

Comments on the Preliminary Preferred Alternative for Essential Fish Habitat Designation, Alternative 3

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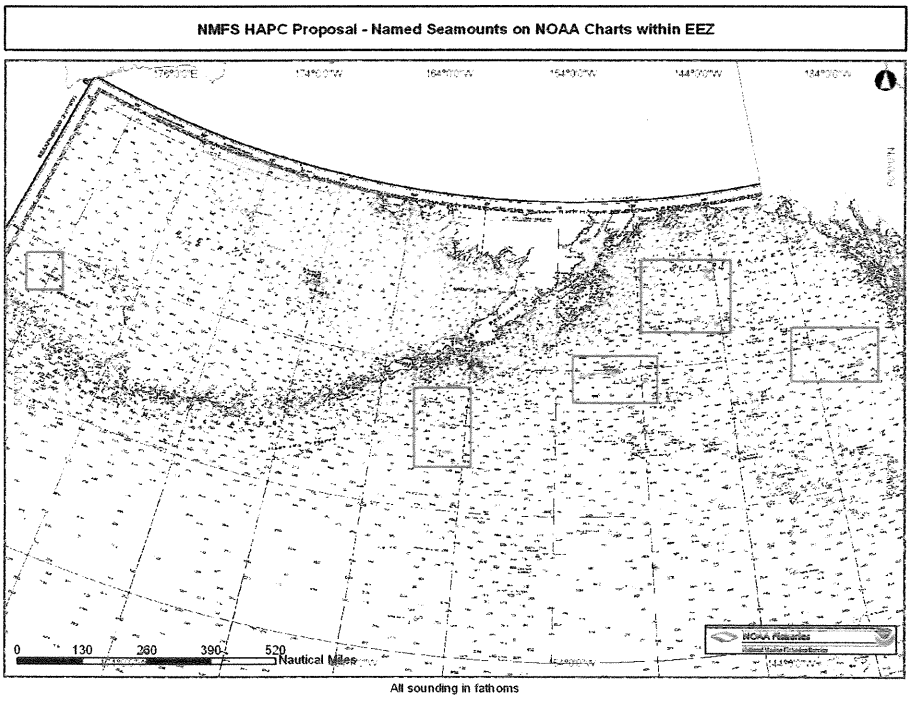
Sixteen named seamounts on the National Oceanic and Atmospheric Administration (NOAA) Charts within the Economic Exclusive Zone (EEZ) of the Alaska Region and within the documented range of Fishery Management Plan (FMP) species are included in Alternative 3 for designation of Essential Fish Habitat.

Of the approximately 140 named seamounts in waters of the North Pacific and Bering Sea, only 24 named seamounts are within EEZ waters managed and regulated by the North Pacific Fishery Management Council and National Marine Fisheries Service Alaska Region. Further, of the 24 named seamounts in the EEZ, only 16 are within the deepest recorded depth range for an FMP species. This depth limit is established at 3,000 meters (m). Records indicate sablefish and deep sea sole range to depths of 2,750 m and 2,950 m, respectively. Other FMP species documented on or above seamounts include rockfish, salmon, crab, sculpin, and squid.

Locator Map for 16 Named Seamounts.

Note: Individual named seamount "chartlets" are attached.



Geographic Coordinates and Depth for Sixteen Named Seamounts on NOAA Charts

#	Named Seamount	Latitude	Longitude	Depth (m)	Depth (fm)	NOAA Chart
1	Bowers Seamount	54.1500 N	174.7000 E	2268	1230	531
		54.0700 N	174.7000 E			
		54.0700 N	174.8700 E			
		54.1500 N	174.8700 E			
2	Brown Seamount	55.0000 N	138.8000 W	1390	760	531
		55.0000 N	138.4000 W			
		54.8000 N	138.8000 W			
		54.8000 N	138.4000 W			
3	Chirikof &	55.1000 N	153.7000 W	2560	1400	531
4	*Marchand*	55.1000 N	151.0000 W	*2524*	*1380*	*531*
	Seamounts	54.7000 N	153.7000 W			
		54.7000 N	151.0000 W			
5	Dall Seamount	58.3000 N	145.8000 W	2507	1410	531
		58.3000 N	144.9000 W			
		57.7500 N	145.8000 W			
		57.7500 N	144.9000 W			
6	Denson Seamount	54.2200 N	137.6000 W	927	504	531
		54.2200 N	137.1000 W			
		53.9500 N	137.6000 W			
		53.9500 N	137.1000 W			
7	Derickson Seamount	53.0000 N	161.5000 W	2890	1580	531
		53.0000 N	161.0000 W			
		52.8000 N	161.5000 W			
		52.8000 N	161.0000 W			
8	Dickins Seamount	54.6500 N	137.1500 W	427	234	531
		54.6500 N	136.8000 W			
		54.4500 N	137.1500 W			
		54.4500 N	136.8000 W			
9	Giacomini Seamount	56.6200 N	146.5300 W	618	338	531
		56.6200 N	146.1200 W			
		56.4200 N	146.5300 W			
		56.4200 N	146.1200 W			
10	Kodiak Seamount	57.0000 N	149.5000 W	2176	1190	531
		57.0000 N	149.1000 W			
		56.8000 N	149.5000 W			
		56.8000 N	149.1000 W			
11	Odessey Seamount	54.7000 N	150.0000 W	1657	906	531
		54.7000 N	149.5000 W			
		54.5000 N	150.0000 W			
		54.5000 N	149.5000 W			
12	Patton Seamount	54.7200 N	150.6000 W	168	92	531
		54.7200 N	150.3000 W			
		54.5700 N	150.6000 W			
		54.5700 N	150.3000 W			
13	Quinn Seamount	56.4500 N	145.4000 W	658	360	531
		56.4500 N	145.0000 W			
		56.2000 N	145.4000 W			
		56.2000 N	145.0000 W			
14	Sirius Seamount	52.1000 N	161.1000 W	1929	1055	531
		52.1000 N	160.6000 W			
		51.9500 N	161.1000 W			
		51.9500 N	160.6000 W			
15	Unimak Seamount	53.8000 N	162.7000 W	1308	715	531
		53.8000 N	162.3000 W			
		53.6500 N	162.7000 W			
		53.6500 N	162.3000 W			
16	Welker Seamount	55.2300 N	140.5500 W	618	388	531
		55.2300 N	140.1600 W			
		55.0300 N	140.5500 W			
		55.0300 N	140.1600 W			

Seamounts are undersea features that rise 1000 m above the surrounding seafloor. Seamounts features consist of a summit, which may be smooth or rough, consists of hard and soft substrates ranging from bedrock to mud, and creates a slack water condition over the seamount, as compared to its flanks. The flanks are steep, usually consist of harder substrates such as bedrock, and experience higher currents. These features provide habitats for many FMP groundfish species. Seamounts may be grouped in a chain or isolated.

Due to the drastic change in surrounding depths and their distance from shore, seamounts may serve as stepping-stones for migratory fish species and also stand alone as unique ecosystems. Currents transport and deposit eggs and juvenile life stages on seamounts, which may serve as rearing habitats for these species. Migratory species take advantage of these features and feeding opportunities.

Scientists, using various methods of research, have investigated 5 of the 16 seamounts, using bottom sampling grabs, submersibles, remote cameras, traps, longlines, trawls, and pots. These surveys identified basic features and species of each seamount.

Summary of geographic features of the five studied seamounts.

Named Seamount	General Features
Dickins	Area consists of soft and hard substrates, which are distributed patchily across the feature. The seamount is scattered with rock pinnacles.
Giacomini	Area is relatively flat and consists of soft substrates with few scattered, less prominent rock pinnacles.
Patton	Area is rough in feature. Harder substrates of rock create a series of pinnacles across the summit.
Quinn	Area consists of soft substrates with a notable absence of pinnacles. The flanks are shallow sloped.
Welker	Area consists of hard and soft substrates, with softer substrates between numerous, scattered rock pinnacles.

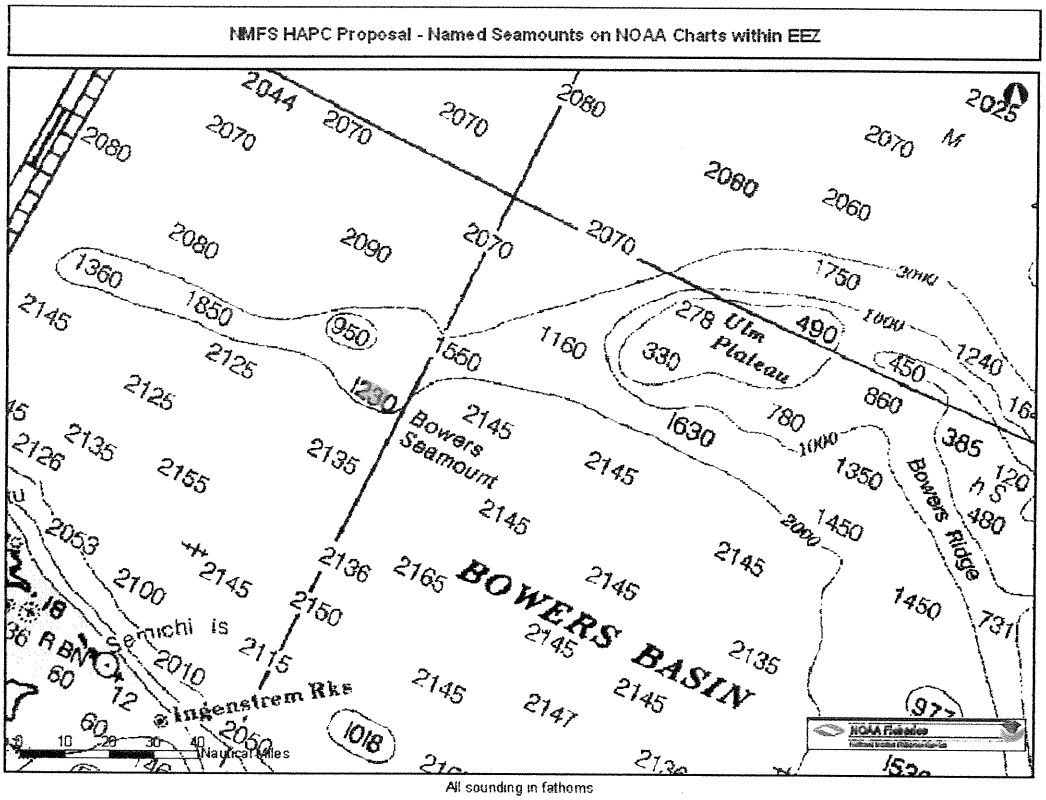
The FMP species identified below have been documented on the five surveyed seamounts listed above and represent the current knowledge of species that associate with seamounts in Alaska waters. Site-specific information for the remaining seamounts does not exist. Therefore, the following species list is presumably representative of all seamounts included here.

FMP Species		FMP Species	
Sablefish adults, including gravid females and larger males	*Anaplopoma fimbria*	Shortraker rockfish adults	*Sebastes borealis*
Deep sea sole	*Embassichthys bathybius*	Aurora rockfish adults	*Sebastes aurora*
Sockeye salmon adults	*Oncorhynchus nerka*	Golden king crab	*Lithodes aequispina*
Pink salmon adults	*Oncorhynchus gorbuscha*	Scarlet red king crab	*Lithodes couesi*
Chum salmon adults	*Oncorhynchus keta*	Grooved tanner crab	*Chionoecetes tanneri*
Longspine thoryhead rockfish, adults	*Sebastolobus altivelis*	Squid	*(Unidentified)*
Shortspine thoryhead rockfish, adults	*Sebastolobus alascanus*	Sculpins	*Cottidae*
Rougheye rockfish adults	*Sebastes aleutianus*		

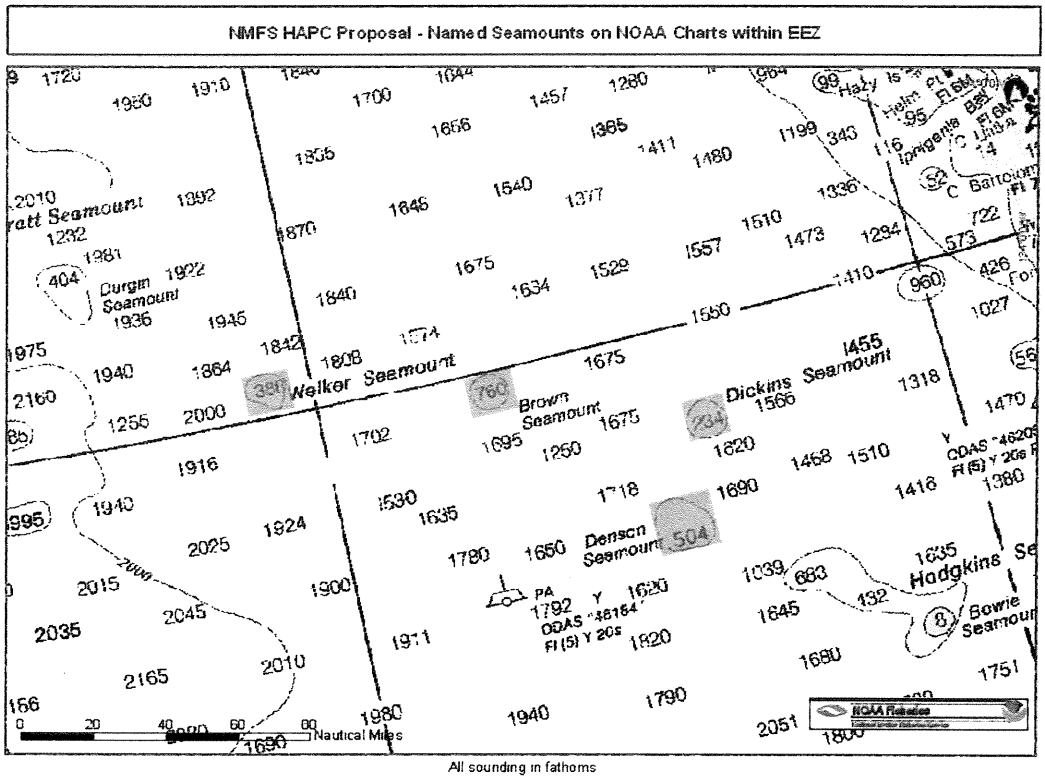
Seamounts are ecologically significant features. Offshore currents transport egg and juvenile life stages of fish species. Some of these are deposited on seamounts, where depth and substrate may be preferred by the particular species. Less migratory species may take residence. Slack water above the seamount summit (as compared to the higher current flank areas) concentrates diurnal migrations of plankton, which then begin to settle and may concentrate fish above and on the summit of the seamount.

Seamounts may attract migratory species, such as sablefish, if preferred habitats are present and feeding opportunities exist. Spawning may also occur. Directed fishery research has documented large adult male and gravid female sablefish on Alaska seamounts, while noting the absence of any juvenile sablefish. (This absence is not attributed to selectivity of the research gear, since the same gear has recruited juvenile life stages in similar research efforts.) These seamounts may serve as a stepping-stone for a migratory species or a species may establish a resident reproductive stock on the seamount.

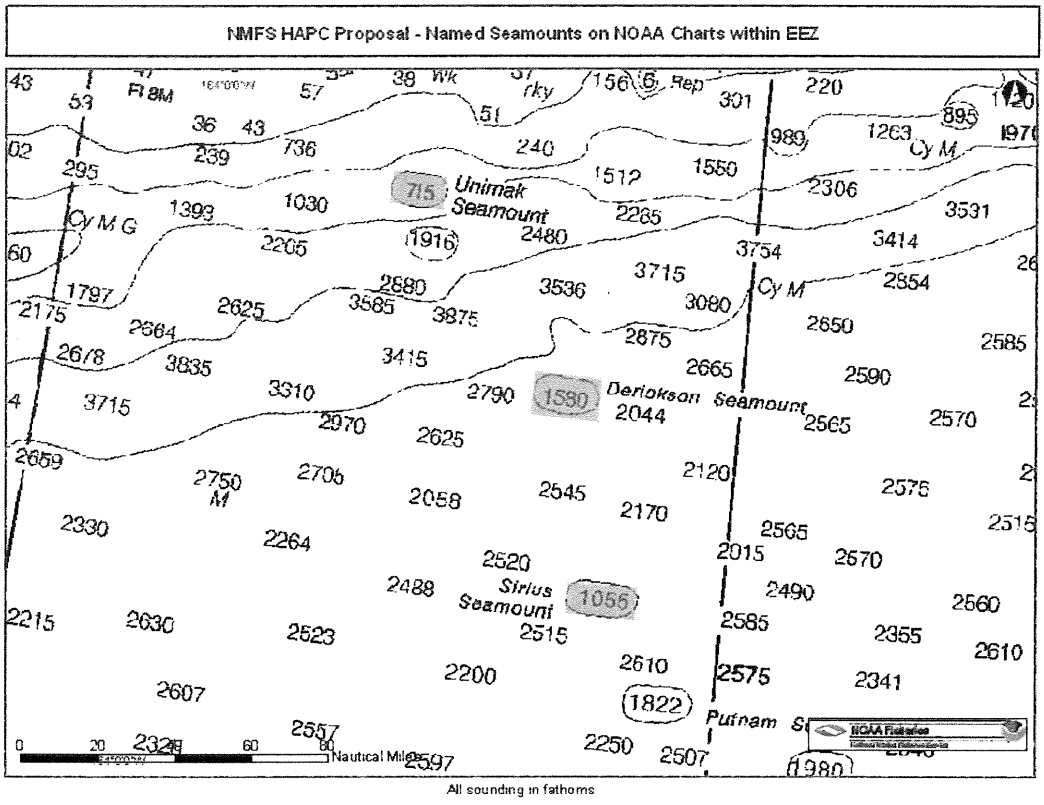
NOAA "chartlet" 1. Bowers Seamount.



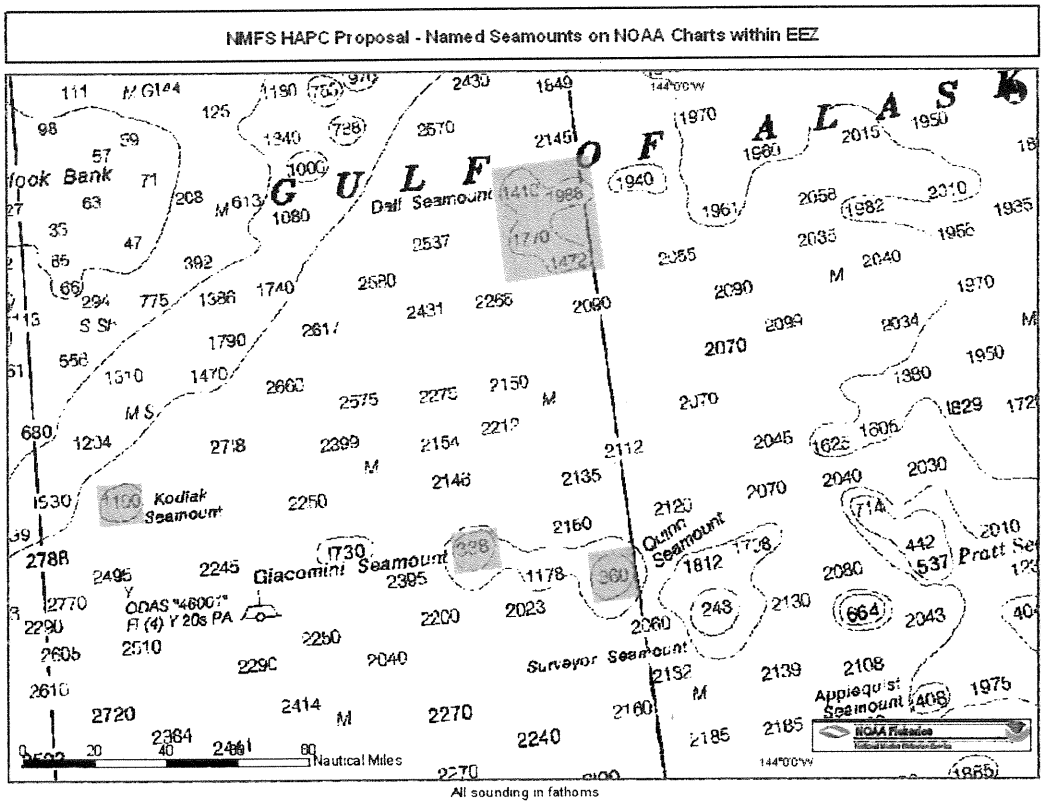
NOAA "chartlet" 2. Welker, Brown, Dickins, and Denson Seamounts.



NOAA "chartlet" 3. Unimak, Derickson, and Sirius Seamounts.



NOAA "chartlet" 4. Dall, Kodiak, Giacomini, and Quinn Seamounts.



NOAA "chartlet" 5. Chirikof, Patton, and Odessey Seamounts.